

Date: Mon, 31 Jan 94 04:30:28 PST
From: Ham-Ant Mailing List and Newsgroup <ham-ant@ucsd.edu>
Errors-To: Ham-Ant-Errors@UCSD.Edu
Reply-To: Ham-Ant@UCSD.Edu
Precedence: Bulk
Subject: Ham-Ant Digest V94 #19
To: Ham-Ant

Ham-Ant Digest Mon, 31 Jan 94 Volume 94 : Issue 19

Today's Topics:

 Antenna pre-amps.
 Computing antenna coverage
 Dipole supplies (4 msgs)
 Info on ACE brand base antenna
 RG-58 and Discone ant. problem at VHF
 RS Rotor (2 msgs)
 Where can I find copper-weld??

Send Replies or notes for publication to: <Ham-Ant@UCSD.Edu>

Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu>

Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Ant Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Thu, 27 Jan 1994 17:06:34 GMT
From: catfish!cscsun!dtiller@uunet.uu.net
Subject: Antenna pre-amps.
To: ham-ant@ucsd.edu

asirene@ntuvax.ntu.ac.sg wrote:

: Hi,

: Can anyone tell me the disadvantages/advantages of using an antenna
: pre-amp?

Advantages: Better apparent noise figure since the coax attenuation is
no longer a factor (for antenna mounted amps), much higher signal levels,
improved copy on weak signals.

Disadvantages: Your transmitter output must backwash thru the thing - either

the amp itself must detect the inbound RF and switch itself away, or you must provide a switching relay and the appropriate signal to do it manually. Additional risk of lightning damage since you've got to run power up the coax or a separate cable, and now there's a sensitive little GasFET up there waiting for a strike. Greater chance of front end overload on relatively strong signals (not an issue with an RF gain control.)

--

David Tiller | Network Administrator | Voice: (804) 752-7373 |
dtiller@rmc.edu | Randolph-Macon College | Fax: (804) 752-7231 |
n2kau@wa4ong.va.usa.na | P.O. Box 5005 | This space for rent. |
ICBM: 37 45N 77 45W | Ashland, Va 23005 |

Date: 29 Jan 94 20:19:12 GMT
From: psinnntp!psinnntp!arrl.org!zlau@rutgers.rutgers.edu
Subject: Computing antenna coverage
To: ham-ant@ucsd.edu

Pages 23-8 to 23-10 of the ARRL Antenna Book discuss this for VHF. The RSGB Microwave Handbook volume I and the VHF/UHF DX book also have useful information on coverage.

Actually, coverage area for an antenna is misleading--it ignores the capability of the equipment and the effect atmospheric conditions have on propagation.

For example, there are long line of sight paths that might be too long for the free space range of simple wide bandwidth microwave gear. On the other hand, the coverage with 1500 watt transmitters and narrow bandwidth sensitive receivers can be considerably in excess of line of sight.

Matthew B Cravit (cravit@world.std.com) wrote:

: A friend of mine asked me this question, and I do not know the answer.
: If one has an antenna (say a vertical or something, as opposed to a
: beam) that is x feet above ground level, how does one compute the
: approximate coverage area of that antenna (in square miles)? For
: example, see the following diagram

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: -
: | |
: | |
: | |
: | _|_
: |x| |
: | | |

```

:   |   |   | Tower
:   |   |   |
:   |   |   |
:   |   |   |
:   |   |   |
:   -----Ground-----

```

: If we assume that the distance x is, say, 200 feet and that the ground
: around the antenna is relatively flat, is there a way to estimate the
: area of coverage for that antenna?

--

Zack Lau KH6CP/1 2 way QRP WAS
 8 States on 10 GHz
 Internet: zlau@arrl.org 10 grids on 2304 MHz

Date: Sat, 29 Jan 1994 22:16:43 GMT
 From: world!dts@uunet.uu.net
 Subject: Dipole supplies
 To: ham-ant@ucsd.edu

In article <2683@indep1.chi.il.us> clifto@indep1.chi.il.us (Cliff Sharp) writes:
 >In article <1994Jan28.201536.11492@bongo.tele.com> julian@bongo.tele.com (Julian
 Macassey) writes:

>> As I intend to make various loops, dipoles and Beveridges, I
 >>could save a dollar or two if I can find a supplier who can sell me a
 >>1,000 ft reel of 14 AWG stranded copper at less than \$0.085 per foot.
 >>Of course, shipping and tax costs will sway this pricing.

>

> I would be REALLY surprised if some local electrical supply dealer
 >couldn't sell you #14 insulated wire at less than \$85/1000 ft. roll.

>

> No idea on insulators, etc. though.

I buy #14 stranded THHN (teflon coated) insulated wire at Home Quarters
 for something like \$12 or so for 500'. The teflon is great as snow does
 not stick to it too well! (Get black, it is pretty invisible once up).

For insulators, I use budwig center (hi-q labeled) insulators. These are
 the same things Kurt Sterba uses and recommends. For the ends, get the matching
 small size end insulators. The centers sell for \$6 and the end ones for \$1.50
 a pair or so.

73,

Dan N1JEB

--

insulators.

Radio Shack is my pricing reference for dipole supplies. They have 14 AWG stranded copper wire in 70ft hanks which costs \$0.085 per foot. Texas Towers has the same stuff for \$0.1 per foot. Mark one up for Radio Shack.

As I intend to make various loops, dipoles and Beveridges, I could save a dollar or two if I can find a supplier who can sell me a 1,000 ft reel of 14 AWG stranded copper at less than \$0.085 per foot. Of course, shipping and tax costs will sway this pricing.

I am also looking for low rent suppliers (in bulk no doubt) of egg and dog-bone insulators.

And finally the \$64,000.00 question. What is recommended as the best "rope" to hold up my cheesy antennas? It should be rot and UV proof. Nylon I believe will rot in the sun, as will polyester. What is the definitive word? Any Plastics men on the net who can answer this?

--

Julian Macassey, N6ARE julian@bongo.tele.com Voice: (310) 659-3366
Paper Mail: Apt 225, 975 Hancock Ave, West Hollywood, California 90069-4074

Date: 29 Jan 94 17:11:33 GMT
From: library.ucla.edu!csulb.edu!nic-nac.CSU.net!usc!yeshua.marcam.com!
news.kei.com!ddsw1!indep1!clifto@network.ucsd.edu
Subject: Dipole supplies
To: ham-ant@ucsd.edu

In article <1994Jan28.201536.11492@bongo.tele.com> julian@bongo.tele.com (Julian Macassey) writes:

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> Of course, shipping and tax costs will sway this pricing.

I would be REALLY surprised if some local electrical supply dealer couldn't sell you #14 insulated wire at less than \$85/1000 ft. roll.

No idea on insulators, etc. though.

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+-----+
| Cliff Sharp | clifto@indep1.chi.il.us |
| WA9PDM | |

+-----+

Date: Sat, 29 Jan 1994 16:11:53 GMT
From: library.ucla.edu!europa.eng.gtefsd.com!howland.reston.ans.net!
vixen.cso.uiuc.edu!uwm.edu!psuvax1!news.cc.swarthmore.edu!netnews.upenn.edu!
netnews.cc.lehigh.edu!ns1.cc.lehigh.edu!c002@@
Subject: Info on ACE brand base antenna
To: ham-ant@ucsd.edu

I am looking for information on a ACE brand base antenna found in the popular electronics....

thanks
DAvid
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:)*****(:
** The Flying HAM **
** David Roseman ** c002@lehigh.edu **
** ** **
** Cole's Law: ** Les Boules Qui Roulet **
** Thinly sliced Cabbage ** Toutes Les Poules!! **

Date: 29 Jan 1994 17:41:50 -0600
From: usc!cs.utexas.edu!not-for-mail@network.ucsd.edu
Subject: RG-58 and Discone ant. problem at VHF
To: ham-ant@ucsd.edu

> A guy I know recently installed a Discone Antenna (R-S brand) and 50 ft of
> RG 58 for his scanner. Problem: The rubber duck on the handheld unit, 20

There's your answer right there: RG58 and UHF don't mix very well. I don't have the RS \$3 Catalog near me, but I think you'll be surprised at the dB loss at UHF. And I don't recall the discone design having much, if any, gain.

On my indoor discone, I use the RG8/M from RS which has less loss at the higher frequencies. You'll find a lot of folks who'll recommend RG6 for scanner use, too. (I don't use it 'cause it's ~70 ohm and I like to use my discone for my 2m HT).

73,

Peter Laws,

Associate Editor - Arkansas,
RCMA _Scanner Journal_,

Peter Laws <plaws@comp.uark.edu> | "That's the President of the United States
n5uwy@ka5bml.#nwar.ar.usa.noam | you're talking about, pinhead."-VP Al Gore

Date: 29 Jan 1994 20:26:00 GMT
From: usc!cs.utexas.edu!swrinde!hopper.acm.org!ACM.ORG!SMITHSON@network.ucsd.edu
Subject: RS Rotor
To: ham-ant@ucsd.edu

Does anyone have any experience with Radio Shack antenna rotors? I can find
no information about load capacity for weight or wind-area of antennas, etc.
I'm looking for a rotor for a 14 ele 2m beam I plan to build, and wondered
if the RS offering might do.

Thanks for your help!

-Brian

brian@wsi.com

-or-

smithson@acm.org

Date: Sat, 29 Jan 1994 22:18:51 GMT
From: world!dts@uunet.uu.net
Subject: RS Rotor
To: ham-ant@ucsd.edu

In article <2iegoo\$7v@hopper.acm.org> smithson@ACM.ORG writes:

>Does anyone have any experience with Radio Shack antenna rotors? I can find
>no information about load capacity for weight or wind-area of antennas, etc.

>I'm looking for a rotor for a 14 ele 2m beam I plan to build, and wondered

>if the RS offering might do.

>Thanks for your help!

>-Brian

>brian@wsi.com

> -or-

>smithson@acm.org

The RS rotor is also the Alliance U105 (and is sold under the channel master
label as well). You should be able to get loading info from someone who sells
one of these brand labels. Alliance also has a thrust bearing which has guy
anchor spots. So you could guy your installation if needed.

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